

| ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit) | | | | | | | February 2002 | | | | | |
|---|----------------------|--|--|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | | | | PE NUMBER AND TITLE 0604823A - FIREFINDER | | | | PROJECT L85 | | | | |
| COST (In Thousands) | | | | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
| L85 | FIREFINDER AN/TPQ-47 | | | 45466 | 26732 | 26122 | 7249 | 10714 | 0 | 0 | 0 | 179511 |
| <p><u>A. Mission Description and Budget Item Justification:</u> The Firefinder AN/TPQ-47 will replace the AN/TPQ-37 Artillery Locating Radar. This program is in response to the approved Mission Need Statement (MNS) for the Advanced Firefinder System which describes an urgent need for a longer range and less manpower intensive radar. The Firefinder AN/TPQ-47 will double the current artillery range performance out to 60km and improve the target throughput up to 50 targets per minute in a highly mobile, transportable and survivable system. The Firefinder AN/TPQ-47 will provide a new capability of missile and rocket detection at ranges of 150-300 km and will be capable of alerting Theater Missile Defense Systems. The system will be capable of C-130 roll-on/roll-off transportability for rapid deployment. Crew size will be reduced from 12 to 9. This program will leverage off the Firefinder AN/TPQ-36(V)8 Electronics Upgrade program by using the same man-machine interface. The Firefinder AN/TPQ-47 will be integrated into the Army Tactical Command and Control System (ATCCS) by interfacing with the Advanced Field Artillery Tactical Data System (AFATDS).</p> <p>This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).</p> <p><u>FY 2001 Accomplishments:</u></p> <ul style="list-style-type: none">2478 Continued development and Validation and Verification (V&V) of the Radar Environmental Simulation System (RESS) and other simulations17447 Completed build of System #1 and began integration and contractor test5763 Completed development and manufacture of Power Amplifier Modules and Sub Array Modules for System #21673 Began build of System #214225 Continued development of Joint Technical Architecture-Army (JTA-A) compliant operational and communications software design, coding and unit test3880 Continued development to provide early warning and cueing of Tactical Ballistic Missiles (TBMs) <p>Total 45466</p> | | | | | | | | | | | | |

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| BUDGET ACTIVITY 5 - Engineering and manufacturing development | PE NUMBER AND TITLE 0604823A - FIREFINDER | PROJECT L85 |
| <p><u>FY 2002 Planned Program</u></p> <ul style="list-style-type: none"> • 300 Continue development and V&V of the RESS and other simulations • 5006 Continue integration and contractor test of System #1 • 14176 Continue build and begin integration and contractor test of System #2 • 1411 Begin test site surveys and Electromagnetic Compatibility (EMC) studies • 3703 Continue development of Joint Technical Architecture-Army (JTA -A) compliant operational and communications software design, coding and unit test • 2136 Continue development to provide early warning and cueing of TBMs <p>Total 26732</p> <p><u>FY 2003 Planned Program</u></p> <ul style="list-style-type: none"> • 200 Complete development and V&V of the RESS and other simulations • 2650 Complete integration and contractor test of System #1 • 8180 Complete integration and contractor test of System #2 • 10686 Conduct Government Live Ammunition/Verification Testing • 3194 Begin development of training devices • 712 Complete development of JTA-A compliant operational and communications software design, coding and unit test • 500 Complete development to provide early warning and cueing on TBMs <p>Total 26122</p> | | |

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|---|---------|---------|---------|--|--|--|--|--|--|
| <u>B. Program Change Summary</u> | FY 2001 | FY 2002 | FY 2003 | | | | | | |
| Previous President's Budget (FY2002 PB) | 46928 | 26956 | 26093 | | | | | | |
| Appropriated Value | 47363 | 26956 | 0 | | | | | | |
| Adjustments to Appropriated Value | 0 | 0 | 0 | | | | | | |
| a. Congressional General Reductions | 0 | -224 | 0 | | | | | | |
| b. SBIR / STTR | -1382 | 0 | 0 | | | | | | |
| c. Omnibus or Other Above Threshold Reduction | 0 | 0 | 0 | | | | | | |
| d. Below Threshold Reprogramming | -80 | 0 | 0 | | | | | | |
| e. Rescissions | -435 | 0 | 0 | | | | | | |
| Adjustments to Budget Years Since FY2002 PB | 0 | 0 | 29 | | | | | | |
| Current Budget Submit (FY 2003 PB) | 45546 | 26732 | 26122 | | | | | | |
| | | | | | | | | | |

| | | | | | | | | | |
|--|---------|---------|---------|---------|---------|---------|---------|----------|------------|
| <u>C. Other Program Funding Summary</u> | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | To Compl | Total Cost |
| SSN: BA5100 Firefinder AN/TPQ-47 | 0 | 0 | 0 | 65655 | 90454 | 103111 | 105458 | 628410 | 993088 |
| | | | | | | | | | |

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604823A - FIREFINDER

L85

D. Acquisition Strategy: The original program had a streamlined acquisition strategy. The strategy was to develop three (3) production representative systems in EMD and go directly to a Milestone III Decision and Full Production. The program strategy has been revised to reduce the overall program risk. The FY04 production buy will be a Low Rate Initial Production (LRIP) buy. The systems will be used to support an Initial Operational Test and Evaluation (IOTE) prior to fielding to achieve Initial Operational Capability (IOC).

| <u>E. Schedule Profile</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Develop and conduct V&V of the RESS | 1-4Q | 1-4Q | 1Q | | | | |
| Develop, code and test JTA-A compliant operational and communications software | 1-4Q | 1-4Q | 1Q | | | | |
| Develop capability to provide early warning and cueing of TBMs | 1-4Q | 1-4Q | 1Q | | | | |
| Fabricate, integrate and conduct contractor test of System #1 | 1-4Q | 1-4Q | 1Q | | | | |
| Fabricate, integrate and conduct contractor test of System #2 | 4Q | 1-4Q | 1-4Q | | | | |
| Conduct Live Ammunition/Verification Test | | | 1-4Q | | | | |
| Develop Training Devices | | | 3-4Q | 1-4Q | 1-4Q | | |
| Conduct Limited User Test | | | | 1-2Q | | | |
| Milestone C for LRIP | | | | 3Q | | | |
| Award LRIP Contract | | | | 3Q | | | |
| Incorporate meteorological data for enhanced long range targeting | | | | | 1-4Q | | |

| ARMY RDT&E COST ANALYSIS(R-3) | | | | | | | | | February 2002 | | | |
|---|------------------------|--------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | | | | | PE NUMBER AND TITLE 0604823A - FIREFINDER | | | | | PROJECT L85 | | |
| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Primary Hardware Dev | C/CPIF | Raytheon Sys, CA/MS | 50976 | 40227 | 1-4Q | 22114 | 1-4Q | 14370 | 1-2Q | 1389 | 129076 | 129076 |
| b . Ancillary Hardware Dev | TBD | Various | 3189 | 1503 | 1-4Q | 760 | 1-3Q | 1532 | 1-2Q | 4421 | 11405 | 11405 |
| c . Trainers Dev | SS/TBD | Raytheon Sys, CA/MS | 0 | 0 | | 0 | | 2060 | 3Q | 8930 | 10990 | 10990 |
| d . Sys Engrg (Contractor) | SS/FP | Various | 1792 | 355 | 2Q | 160 | 2Q | 212 | 2Q | 82 | 2601 | 2601 |
| e . Sys Engrg (Government) | MIPR | Various | 1595 | 996 | 1-2Q | 585 | 1-2Q | 436 | 1-2Q | 350 | 3962 | 3962 |
| f . Software Engineering | C/CPAF | Telos, OK | 799 | 453 | 1-2Q | 237 | 1-2Q | 490 | 1-2Q | 250 | 2229 | 2229 |
| g . SSEB | MIPR | Various | 227 | 0 | | 0 | | 0 | | 0 | 227 | 227 |
| | | | | | | | | | | | | |
| Subtotal: | | | 58578 | 43534 | | 23856 | | 19100 | | 15422 | 160490 | 160490 |
| | | | | | | | | | | | | |

| ARMY RDT&E COST ANALYSIS(R-3) | | | | | | | | | February 2002 | | | |
|---|------------------------|--------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | | | | | PE NUMBER AND TITLE 0604823A - FIREFINDER | | | | | PROJECT L85 | | |
| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Development Support - Government | MIPR | Various | 560 | 183 | 1-2Q | 185 | 1-2Q | 264 | 1-2Q | 297 | 1489 | 1489 |
| b . Integrated Logistics Spt (ILS) - Contractor | TBD | Various | 174 | 327 | 2Q | 167 | 2Q | 150 | 2Q | 75 | 893 | 893 |
| c . ILS Support -Government | MIPR | CECOM, Fort Monmouth, NJ | 308 | 80 | 2Q | 56 | 2Q | 154 | 2Q | 250 | 848 | 848 |
| d . Configuration Mgmt Spt- Government | MIPR | CECOM, Fort Monmouth, NJ | 296 | 164 | 1Q | 110 | 1Q | 236 | 1Q | 130 | 936 | 936 |
| | | | | | | | | | | | | |
| Subtotal: | | | 1338 | 754 | | 518 | | 804 | | 752 | 4166 | 4166 |
| | | | | | | | | | | | | |

| ARMY RDT&E COST ANALYSIS(R-3) | | | | | | | | | February 2002 | | | |
|---|------------------------|--------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
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| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Development Test & Evaluation (DT&E) | MIPR | Yuma, AZ WSMR, NM | 0 | 0 | 2Q | 0 | | 2150 | 2Q | 0 | 2150 | 2150 |
| b . Verification Testing | MIPR | Various | 0 | 50 | | 60 | 2Q | 2275 | 1-2Q | 0 | 2385 | 2385 |
| c . Test Support | MIPR | Various | 759 | 270 | 1-3Q | 1216 | 1-3Q | 275 | 1-2Q | 175 | 2695 | 2695 |
| d . Limited User Test | MIPR | Various | 0 | 0 | | 0 | | 0 | | 250 | 250 | 250 |
| e . Logistics/Training | MIPR | Various | 0 | 0 | | 0 | | 250 | 3-4Q | 0 | 250 | 250 |
| | | | | | | | | | | | | |
| Subtotal: | | | 759 | 320 | | 1276 | | 4950 | | 425 | 7730 | 7730 |
| | | | | | | | | | | | | |
| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Program Management - Contractor | C/FP | Various | 964 | 315 | 1-2Q | 316 | 1-2Q | 382 | 1-2Q | 249 | 2226 | 2226 |
| b . Program Management - Government | MIPR | CECOM, Fort Monmouth, NJ | 298 | 0 | 1Q | 141 | 1Q | 141 | 1Q | 300 | 880 | 880 |
| c . Product Manager Office - Internal Support | MIPR/PWD | CECOM, Fort Monmouth, NJ | 1291 | 543 | 1-4Q | 625 | 1-4Q | 745 | 1-4Q | 815 | 4019 | 4019 |
| | | | | | | | | | | | | |

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|--|------------------------------|-----------------------------------|-------------------|-----------------|--|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|
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| IV. Management Services (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| | | | | | | | | | | | | |
| Subtotal: | | | 2553 | 858 | | 1082 | | 1268 | | 1364 | 7125 | 7125 |
| | | | | | | | | | | | | |
| Project Total Cost: | | | 63228 | 45466 | | 26732 | | 26122 | | 17963 | 179511 | 179511 |
| | | | | | | | | | | | | |